

Western Numeric Nutrient Criteria Workshop

May 1–3, 2018

Draft Agenda

Meeting Location

U.S. EPA Region 9 Office
75 Hawthorn Street
San Francisco, CA 94105

Day 1-AV: Region 9 designee

Day 1-Timekeeping: Clair Meehan (primary) Brannon Walsh (back up)

Day 1- MCs: Janice Alers-Garcia & Rochelle Labiosa

Day 1-Discussion moderator (Lakes and Reservoirs): Tina Laidlaw/ Flip chart notes: Stephen Maurano

Day 1-EPA notes: Iffy Davis

Day 1-Action items: Captured by Tetra Tech

DAY 1—TUESDAY, MAY 1

12:00–12:30 pm

Welcome and Introductory Remarks

Tomás Torres, Water Division Director—EPA Region 9; Deborah Nagle, Director of the Office of Science and Technology—EPA Headquarters; and Dana Thomas, Chief of the Ecological and Health Processes Branch—EPA Headquarters

12:30–12:35 pm

Agenda Overview and Logistics

Stephen Maurano, Water Quality Standard Coordinator, Office of Water Quality Assessment, EPA Region 9

12:35–12:55 pm

Ice Breaker—TBD

Freshwater: Lakes and Reservoirs

12:55–5:30 pm

Deriving Nutrient Criteria for Lakes/Reservoirs: This session will focus on sharing EPA, state and tribal experiences with approaches used to derive numeric nutrient criteria for lakes and reservoirs.

12:55–2:25 pm

Endpoint Selection and Reducing Variability of Stressor-Response Analyses

Lester Yuan, Ecological and Health and Processes Branch—EPA Headquarters (1.5 hours)

2:25–2:55 pm

Shifts in Phytoplankton Community Structure and Function as Indication of Nutrient Pollution for Lakes and Reservoirs

Eric Hargett, Wyoming Department of Environmental Quality (30 mins)

2:55–3:10 pm

Break

3:10–4:00 pm

Phosphorus Control in the Oligotrophic Pend Oreille Basin

Ken Merrill, Kalispel Natural Resource Department (25 mins)

Lessons Learned in Establishing Numeric Nutrient Criteria on the Pyramid Lake Reservation

Kameron Morgan, Pyramid Lake Natural Resources Department (25 mins)

4:00–4:30 pm

Group Discussion: Next Steps to Advance Nutrient Criteria Development for Lakes

Tina Laidlaw, EPA Region 8

4:30–5:30 pm

Overarching Presentations

Patterns and Processes of Water-Quality Variability in Upper San Francisco Bay

James Cloern, United States Geological Survey (30 mins)

5:30 pm

Networking Event

Day 2-AV: Region 9 designee

Day 2-Timekeeping: Clair Meehan (primary) Iffy Davis (back up)

Day 2-MCs: Rochelle Labiosa & Janice Alers-Garcia

Day 2-Discussion moderator (Rivers and Streams): Stephen Maurano/ Flip chart notes: Janice Alers-Garcia

Day 2-Wrap up and Action Items (Multiple lines of evidence): Mike Paul/ Flip chart notes: Rochelle Labiosa

Day 2-EPA notes: Tina Laidlaw

Day 2-Action items: Captured by Tetra Tech

DAY 2—WEDNESDAY, MAY 2

Freshwater: Rivers and Streams

8:00 am–2:00pm

Deriving Numeric Nutrient Criteria or Nutrient Thresholds for Rivers and Streams:

This session focuses on the use and application of different ecological and biological indicators and other tools to develop numeric nutrient criteria for rivers and streams.

8:00–9:55 am

Using Algal Indicators and Other Tools-Panel Discussion on the Use of Diatoms to Derive Nutrient Criteria Thresholds

Jason Pappani, Idaho Department of Environmental Quality; Dustin Bilhimer, Washington State Department of Ecology and Shannon Hubler (via webinar), Oregon Department of Environmental Quality (35 mins)

N-STEPS Support: How to Control for Variability and Confounding Factors in Stressor Response Analysis of Nutrient and Diatom Data

Michael Paul, Tetra Tech (30 mins)

Using Biological Integrity to Support Development of Biostimulatory Objectives in California Jessie Maxfield, California Environmental Protection Agency (25 mins)

Exploring Ecological Indicators of Nutrient Pollution in Utah's Headwaters

Jeff Ostermiller, Utah Department of Environmental Quality (25 mins)

9:55–10:10 am

Break

10:10 am–12:15 pm

Researching Algal Indicators of Excess Nutrients in Arizona Streams

Patti Spindler, Arizona Department of Environmental Quality (25 mins)

Development of Criteria Protective of Rivers, Streams and Downstream- an N-STEPS Data Consultation Exercise

Hanna Winter, Lummi Natural Resources Department (25 mins)

Nutrient Monitoring on the Colville Indian Reservation

Bessie Wright, The Confederated Tribes of the Colville Reservation Natural Resources (25 mins)

Computer Modeling Approaches for Deriving Numeric Nutrient Criteria for Large Rivers

Mike Suplee, Montana Department of Environmental Quality (25 mins)

Placeholder for presentation

Gary Colegrove, Hoopa Tribal Environmental Protection Agency (25 mins)

12:15–1:15 pm

1:15-1:45 pm

Lunch (on your own)

Drivers and Management of Nitrogen for Improving Groundwater and Stream Water Quality

Jana Compton, Office of Research and Development (EPA Western Ecology Division) (30 mins)

1:45–2:15 pm

Group Discussion: Challenges and Potential Solutions to the Development and Adoption of Nutrient Criteria in Rivers and Streams

Stephen Maurano, EPA Region 9

Putting Numeric Nutrient Criteria and Nutrient Thresholds into Action

2:15–4:45 pm

Putting Numeric Nutrient Criteria and Nutrient Thresholds into Action: Participants will gain experience on the approaches for combining independent lines of evidence and documenting the decision framework used to establish the final criteria. States will discuss the tools used to implement numeric nutrient criteria into their water quality standards.

2:15–4:30 pm

Group Exercise: Use of Multiple Lines of Evidence to Support Numeric Nutrient Criteria

Mike Paul, Tetra Tech

4:30–4:45 pm

Wrap up and Action Items

Mike Paul, Tetra Tech

4:45–5:45 pm

Scientific Exchange: Poster Presentations & Hands-on Interactive Displays

Day 3-AV: Region 9 designee

Day 3-Timekeeping: Clair Meehan (primary) Iffy Davis (back up)

Day 3-MCs: Rochelle Labiosa & Janice Alers-Garcia

Day 3- Discussion moderator (Lessons Learned and Challenges in Moving from Criteria Adoption to implementation): Tina Laidlaw/ Flip chart notes: Janice Alers-Garcia

Day 3-Discussion moderator (Estuaries and Coastal Waters): Rochelle Labiosa/ Flip chart notes: Stephen Maurano

Day 3- Discussion moderator (Feedback and Next Steps): Janice Alers-Garcia/ Flip chart notes: Rochelle Labiosa

Day 3-EPA notes: Brannon Walsh

Day 3-Action items: Captured by Tetra Tech

DAY 3—THURSDAY, MAY 3

Putting Numeric Nutrient Criteria and Nutrient Thresholds into Action (Continued)

8:00–9:15 am

Moving from Criteria Adoption to Implementation: Lessons Learned to Overcome Challenges and Misperceptions

The Dixie Drain: A Novel Approach to Nutrient Reductions in the Boise River in Idaho (via webinar)

Kati Carberry, Idaho Department of Environmental Quality (25 mins)

Science-based Numeric Nutrient Criteria can be Hard to Meet: The Approaches and Challenges to Implementing them in a State Water Quality Program

Mike Suplee, Montana Department of Environmental Quality (25 mins)

Investigating Highest Attainable Condition: Tools for the Rapid Evaluation of Landscape Constraints on Stream Biological Integrity Raphael Mazor, Southern California Coastal Water Research Project (25 mins)

9:15-9:35

Group Discussion: Lessons Learned and Challenges in Moving from Criteria Adoption to Implementation

Tina Laidlaw, EPA Region 8

9:35–9:45 am

Break

Marine: Estuaries and Coastal Waters

9:45 am–2:45 pm

Deriving Numeric Nutrient Criteria or Nutrient Thresholds for Estuaries, Including Downstream Protection: This session will focus on sharing EPA, state and tribal experiences with approaches used to derive numeric nutrient criteria for estuaries.

9:45 am–11:40 am

Exploring Climate Impacts on Inland and Coastal Eutrophication Anna Michalak, Carnegie Institution for Science (30 mins)

Contributions to the Nutrient Toolbox: Identifying Drivers, Nutrient Sources, and Attribution of Exceedances Cheryl Brown, Office of Research and Development (EPA's National Health and Environmental Effects Research Lab) (30 mins)

Puget Sound Nutrient Dynamics and Source Reduction Project Dustin Bilhimer, Washington State Department of Ecology (30 mins)

Numeric Nutrient Criteria in Hawaii: Development and Challenges Lauren Cruz, Hawaii State Department of Health (25 mins)

11:40 am–11:50 am

Break

11:50 am–1:20 pm

Working Lunch

Emerging HABs, HABs Toxicity and HABs Fluxes Linked to Anthropogenic Sources
Raphael Kudela, University of California Santa Cruz (30 mins)

San Francisco Estuary Efforts to Reduce Nutrient Pollution
David Senn, San Francisco Estuary Institute (30 mins)

Nutrient Impact Assessments of POTW Ocean Outfalls Along the California Coast Martha Sutula, Southern California Coastal Water Research Project (30 mins)

1:20 pm–1:30 pm

Break

1:30 pm–2:15 pm

Panel and Interactive Group Discussion

Use and Applicability of Nutrient Models and Other Tools to Address Nutrient Pollution
All speakers from the Estuarine and Coastal Waters session

Open Discussion on Technological Needs
Rochelle Labiosa, EPA Region 10

2:15–2:45 pm

Workshop Wrap Up: Feedback and Next Steps
Janice Alers-Garcia, EPA-HQ

2:45 pm

Adjourn